

1600

15

**CRF Errors Edited by the STIC Systems
Branch**

Serial Number: 09/781,712B

CRF Edit Date: 3/22/04
Edited by: [Signature]

ENTERED

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

___ Deleted: / invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

___ Moved responses to same line as heading/numeric identifier, specifically:

___ Other:



1600

RAW SEQUENCE LISTING

DATE: 03/22/2004

PATENT APPLICATION: US/09/781,712B

TIME: 11:06:14

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03222004\I781712B.raw

3 <110> APPLICANT: Crooke, Stanley T
 4 Lima, Walter
 5 Wu, Hongjiang
 7 <120> TITLE OF INVENTION: Methods of Using Mammalian RNase H and
 Compositions Thereof
 9 <130> FILE REFERENCE: ISPH-0520
 11 <140> CURRENT APPLICATION NUMBER: US 09/781,712B
 12 <141> CURRENT FILING DATE: 2001-02-12
 14 <150> PRIOR APPLICATION NUMBER: US 60/067,458
 15 <151> PRIOR FILING DATE: 1997-12-04
 17 <150> PRIOR APPLICATION NUMBER: US 09/203,716
 18 <151> PRIOR FILING DATE: 1998-12-02
 20 <150> PRIOR APPLICATION NUMBER: US 09/343,809
 21 <151> PRIOR FILING DATE: 1999-06-30
 23 <150> PRIOR APPLICATION NUMBER: US 09/684,254
 24 <151> PRIOR FILING DATE: 2000-10-06
 26 <160> NUMBER OF SEQ ID NOS: 39
 28 <170> SOFTWARE: PatentIn version 3.1
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 31 <211> LENGTH: 299
 32 <212> TYPE: PRT
 33 <213> ORGANISM: Homo sapien
 35 <400> SEQUENCE: 1
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 38 1 5 10 15
 41 Ser Ser Pro Val Pro Ala Val Cys Arg Lys Glu Pro Cys Val Leu Gly
 42 20 25 30
 45 Val Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met Val Tyr Ala
 46 35 40 45
 49 Ile Cys Tyr Cys Pro Leu Pro Arg Leu Ala Asp Leu Glu Ala Leu Leu
 50 50 55 60
 53 Val Ala Asp Ser Leu Thr Leu Leu Glu Ser Glu Arg Glu Arg Leu Phe
 54 65 70 75 80
 57 Ala Leu Met Glu Asp Thr Asp Phe Val Gly Trp Ala Leu Asp Val Leu
 58 85 90 95
 61 Ser Pro Asn Leu Ile Ser Thr Ser Met Leu Gly Trp Val Leu Tyr Asn
 62 100 105 110
 65 Leu Asn Ser Leu Ser His Asp Thr Ala Thr Gly Leu Ile Gln Tyr Ala
 66 115 120 125
 69 Leu Asp Gln Gly Val Asn Val Thr Gln Val Phe Val Asp Thr Val Gly
 70 130 135 140
 73 Met Pro Glu Thr Tyr Gln Ala Arg Leu Gln Gln Ser Phe Pro Gly Ile
 74 145 150 155 160
 77 Glu Val Thr Val Leu Ala Leu Ala Asp Ala Leu Tyr Pro Val Val Ser

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DATE: 03/22/2004

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TIME: 11:06:14

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03222004\I781712B.raw

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78          165          170          175
81 Ala Ala Ser Ile Cys Ala Leu Val Ala Arg Asp Gln Ala Val Leu Leu
82          180          185          190
85 Trp Gln Phe Val Glu Leu Leu Gln Asp Leu Asp Thr Asp Tyr Gly Ser
86          195          200          205
89 Gly Tyr Pro Asn Asp Pro Leu Thr Leu Ala Trp Leu Leu Glu His Val
90          210          215          220
93 Glu Pro Val Phe Gly Phe Pro Gln Phe Val Arg Phe Ser Trp Arg Thr
94 225          230          235          240
97 Ala Gln Thr Ile Leu Glu Leu Glu Ala Glu Asp Val Ile Trp Glu Asp
98          245          250          255
101 Ser Ala Ser Glu Asn Gln Glu Gly Leu Arg Leu Ile Thr Ser Tyr Phe
102          260          265          270
105 Leu Asn Glu Gly Ser Gln Ala Arg Pro Arg Ser Ser His Arg Tyr Phe
106          275          280          285
109 Leu Glu Arg Gly Leu Glu Ser Ala Thr Ser Leu
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124 Ser Ser Pro Val Pro Ala Val Cys Leu Leu Glu Pro Cys Val Leu Gly
125          20          25          30
128 Val Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met Val Tyr Ala
129          35          40          45
132 Ile Cys Tyr Cys Pro Leu Ser Arg Leu Ala Asp Leu Glu Ala Leu Leu
133          50          55          60
136 Val Ala Asp Ser Leu Thr Leu Thr Glu Asn Glu Arg Glu Arg Leu Phe
137 65          70          75          80
140 Ala Leu Met Glu Glu Asp Gly Asp Phe Val Gly Trp Ala Leu Asp Val
141          85          90          95
144 Leu Ser Pro Asn Leu Ile Ser Thr Ser Met Leu Gly Arg Val Leu Tyr
145          100          105          110
148 Asn Leu Asn Ser Leu Ser His Asp Thr Ala Ala Gly Leu Ile Gln Tyr
149          115          120          125
152 <210> SEQ ID NO: 3
153 <211> LENGTH: 307
154 <212> TYPE: PRT
155 <213> ORGANISM: Caenorhabditis elegans
157 <400> SEQUENCE: 3
159 Ser Leu Thr Val Leu Tyr Phe Ile Glu Arg Met Ser Leu Leu Cys Glu
160 1          5          10          15
163 Thr Glu Arg Ser Leu Thr Trp Asn Asn Phe Gly Asn Gly Ile Pro Cys
164          20          25          30
167 Val Leu Gly Ile Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met
168          35          40          45

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RAW SEQUENCE LISTING

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DATE: 03/22/2004

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03222004\I781712B.raw

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171 Val Tyr Ala Ala Ala Ile Ser Pro Leu Asp Gln Asn Val Glu Leu Leu
172      50                      55                      60
175 Asn Leu Gly Val Asp Asp Ser Leu Ala Leu Asn Glu Ala Leu Arg Glu
176 65                      70                      75                      80
179 Glu Ile Phe Asn Leu Met Asn Glu Asp Glu Asp Ile Gln Gln Ile Ile
180                      85                      90                      95
183 Ala Tyr Ala Leu Arg Cys Leu Ser Pro Glu Leu Ile Ser Cys Ser Met
184                      100                     105                     110
187 Leu Leu Arg Gln Leu Tyr Ser Leu Asn Glu Val Ser His Glu Ala Ala
188                      115                     120                     125
191 Ile Thr Leu Ile Arg Asp Ala Leu Ala Cys Asn Val Asn Val Val Glu
192                      130                     135                     140
195 Ile Leu Val Asp Thr Val Gly Pro Leu Ala Thr Tyr Gln Ala Leu Leu
196 145                      150                      155                      160
199 Glu Leu Leu Phe Pro Gly Ile Ser Ile Cys Val Thr Glu Leu Ala Asp
200                      165                      170                      175
203 Ser Leu Phe Pro Ile Val Ser Ala Ala Ser Ile Ala Ala Leu Val Thr
204                      180                      185                      190
207 Arg Asp Ser Arg Leu Arg Asn Trp Gln Phe Arg Glu Leu Asn Ile Leu
208                      195                      200                      205
211 Val Pro Asp Ala Gly Tyr Gly Ser Gly Tyr Pro Gly Asp Pro Asn Thr
212                      210                     215                     220
215 Leu Leu Phe Leu Gln Leu Ser Val Glu Pro Val Phe Gly Phe Cys Ser
216 225                      230                      235                      240
219 Leu Val Arg Ser Ser Trp Leu Thr Ala Ser Thr Ile Val Glu Leu Arg
220                      245                      250                      255
223 Cys Val Pro Gly Ser Trp Glu Asp Asp Glu Glu Glu Gly Leu Ser Gln
224                      260                     265                     270
227 Ser Leu Arg Met Thr Ser Trp Met Val Pro Leu Asn Glu Thr Glu Val
228                      275                      280                      285
231 Val Pro Leu Arg Asn Met Glu Ile Asn Leu Thr Leu Ile Val Ser Thr
232                      290                     295                     300
235 Leu Phe Leu
236 305
239 <210> SEQ ID NO: 4
240 <211> LENGTH: 307
241 <212> TYPE: PRT
242 <213> ORGANISM: Saccharomyces cerevisiae
244 <400> SEQUENCE: 4
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250 Ser Tyr Phe Ser Pro Val Pro Ser Ala Leu Leu Glu Gln Asn Asp Ser
251                      20                      25                      30
254 Pro Ile Ile Met Gly Ile Asp Glu Ala Gly Arg Gly Pro Val Leu Gly
255                      35                      40                      45
258 Pro Met Val Tyr Ala Val Ala Tyr Ser Thr Gln Leu Tyr Gln Asp Glu
259                      50                      55                      60
262 Thr Ile Ile Pro Asn Tyr Glu Phe Asp Asp Ser Leu Leu Leu Thr Asp
263 65                      70                      75                      80

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RAW SEQUENCE LISTING

DATE: 03/22/2004

PATENT APPLICATION: US/09/781,712B

TIME: 11:06:14

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03222004\I781712B.raw

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266 Pro Ile Arg Arg Met Leu Phe Ser Leu Ile Tyr Gln Asp Asn Glu Glu
267      85      90      95
270 Leu Thr Gln Ile Gly Tyr Ala Thr Thr Cys Ile Thr Pro Leu Asp Ile
271      100      105      110
274 Ser Arg Gly Met Ser Leu Phe Pro Pro Thr Arg Asn Tyr Asn Leu Asn
275      115      120      125
278 Glu Gln Ala His Asp Val Thr Met Ala Leu Ile Asp Gly Val Ile Leu
279      130      135      140
282 Gln Asn Val Leu Leu Ser His Val Tyr Val Asp Thr Val Gly Pro Pro
283 145      150      155      160
286 Ala Ser Tyr Gln Leu Leu Glu Gln Arg Phe Pro Gly Val Leu Phe
287      165      170      175
290 Thr Val Ala Leu Leu Ala Asp Ser Leu Tyr Cys Met Val Ser Val Ala
291      180      185      190
294 Ser Val Val Ala Leu Val Thr Arg Asp Ile Leu Val Glu Ser Leu Leu
295      195      200      205
298 Arg Asp Pro Asp Glu Ile Leu Gly Ser Gly Tyr Pro Ser Asp Pro Leu
299      210      215      220
302 Thr Val Ala Trp Leu Leu Arg Asn Gln Thr Ser Leu Met Gly Trp Pro
303 225      230      235      240
306 Ala Asn Met Val Arg Phe Ser Trp Gln Thr Cys Gln Thr Leu Leu Asp
307      245      250      255
310 Asp Ala Ser Leu Asn Ser Ile Pro Ile Leu Trp Glu Glu Gln Tyr Met
311      260      265      270
314 Asp Ser Arg Leu Asn Ala Ala Gln Leu Thr Leu Gln Leu Gln Leu Gln
315      275      280      285
318 Met Val Ala Leu Pro Val Arg Arg Leu Arg Leu Arg Thr Leu Asp Asn
319      290      295      300
322 Trp Tyr Arg
323 305
326 <210> SEQ ID NO: 5
327 <211> LENGTH: 198
328 <212> TYPE: PRT
329 <213> ORGANISM: Escherichia coli
331 <400> SEQUENCE: 5
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334 1      5      10      15
337 Glu Val Gly Arg Gly Pro Leu Val Gly Ala Val Val Thr Ala Ala Val
338      20      25      30
341 Ile Leu Asp Pro Ala Arg Pro Ile Ala Gly Leu Asn Asp Ser Leu Leu
342      35      40      45
345 Leu Ser Glu Leu Arg Arg Leu Ala Leu Tyr Glu Glu Ile Leu Glu Leu
346      50      55      60
349 Ala Leu Ser Trp Ser Leu Gly Arg Ala Glu Pro His Glu Ile Asp Glu
350 65      70      75      80
353 Leu Asn Ile Leu His Ala Thr Met Leu Ala Met Gln Arg Ala Val Ala
354      85      90      95
357 Gly Leu His Ile Ala Pro Glu Tyr Val Leu Ile Asp Gly Asn Arg Cys
358      100      105      110

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/781,712B

DATE: 03/22/2004

TIME: 11:06:14

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03222004\I781712B.raw

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361 Pro Leu Leu Pro Met Pro Ala Met Ala Val Val Leu Gly Asp Ser Arg
362      115      120      125
365 Val Pro Glu Ile Ser Ala Ala Ser Ile Leu Ala Leu Val Thr Arg Asp
366      130      135      140
369 Ala Glu Met Ala Ala Leu Asp Ile Val Phe Pro Gln Tyr Gly Phe Ala
370 145      150      155      160
373 Gln His Leu Gly Tyr Pro Thr Ala Phe His Leu Glu Leu Leu Ala Glu
374      165      170      175
377 His Gly Ala Thr Glu His His Arg Arg Ser Phe Gly Pro Val Leu Arg
378      180      185      190
381 Ala Leu Gly Leu Ala Ser
382      195
385 <210> SEQ ID NO: 6
386 <211> LENGTH: 286
387 <212> TYPE: PRT
388 <213> ORGANISM: Homo sapiens
390 <400> SEQUENCE: 6
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396 Pro Cys Arg Arg Gly Ser Arg Gly Phe Gly Met Phe Tyr Ala Val Arg
397      20      25      30
400 Arg Gly Arg Leu Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala
401      35      40      45
404 Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Leu Leu Phe Ala Thr Glu
405      50      55      60
408 Asp Glu Ala Trp Ala Phe Val Arg Leu Ser Ala Ser Pro Glu Val Ser
409 65      70      75      80
412 Glu Gly His Glu Asn Gln His Gly Gln Glu Ser Glu Ala Leu Pro Gly
413      85      90      95
416 Leu Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Gln
417      100     105     110
420 Pro Tyr Ala Leu His Met Leu Pro Ser Val Glu Pro Ala Pro Pro Val
421      115     120     125
424 Ser Arg Asp Thr Phe Ser Tyr Met Gly Asp Phe Val Val Val Tyr Thr
425      130     135     140
428 Asp Gly Cys Cys Ser Ser Asn Gly Arg Arg Leu Pro Arg Ala Gly Ile
429 145     150     155     160
432 Gly Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu
433      165     170     175
436 Pro Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Leu
437      180     185     190
440 Ala Ile Glu Gln Ala Leu Thr Gln Asn Ile Asn Leu Leu Val Leu Tyr
441      195     200     205
444 Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Gln Gly
445      210     215     220
448 Trp Leu Leu Asn Gly Trp Leu Thr Ser Ala Gly Leu Glu Val Ile Asn
449 225     230     235     240
452 Leu Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile
453      245     250     255

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VERIFICATION SUMMARY

DATE: 03/22/2004

PATENT APPLICATION: US/09/781,712B

TIME: 11:06:15

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03222004\I781712B.raw



1600

RAW SEQUENCE LISTING

DATE: 03/17/2004

PATENT APPLICATION: US/09/781,712B

TIME: 15:48:04

Input Set : A:\ISPH-520.ST25.txt

Output Set: N:\CRF4\03172004\I781712B.raw

3 <110> APPLICANT: Crooke, Stanley T
 4 Lima, Walter
 5 Wu, Hongjiang
 7 <120> TITLE OF INVENTION: Methods of Using Mammalian RNase H and Compositions Thereof
 9 <130> FILE REFERENCE: ISPH-0520
 11 <140> CURRENT APPLICATION NUMBER: US 09/781,712B
 12 <141> CURRENT FILING DATE: 2001-02-12
 14 <150> PRIOR APPLICATION NUMBER: US 60/067,458
 15 <151> PRIOR FILING DATE: 1997-12-04
 17 <150> PRIOR APPLICATION NUMBER: US 09/203,716
 18 <151> PRIOR FILING DATE: 1998-12-02
 20 <150> PRIOR APPLICATION NUMBER: US 09/343,809
 21 <151> PRIOR FILING DATE: 1999-06-30
 23 <150> PRIOR APPLICATION NUMBER: US 09/684,254
 24 <151> PRIOR FILING DATE: 2000-10-06
 26 <160> NUMBER OF SEQ ID NOS: 39
 28 <170> SOFTWARE: PatentIn version 3.1

Does Not Comply
 Corrected Diskette Needed

ERRORED SEQUENCES

1220 <210> SEQ ID NO: 39
 1221 <211> LENGTH: 20
 1222 <212> TYPE: DNA
 1223 <213> ORGANISM: Artificial sequence
 1225 <220> FEATURE:
 1226 <223> OTHER INFORMATION: Synthetic
 1228 <400> SEQUENCE: 39
 1229 ccttaaacaa ttttaatgtc

20

E--> 1233 (21)

VERIFICATION SUMMARY

DATE: 03/17/2004

PATENT APPLICATION: US/09/781,712B

TIME: 15:48:05

Input Set : A:\ISPH-520.ST25.txt

Output Set: N:\CRF4\03172004\I781712B.raw

L:1233 M:254 E: No. of Bases conflict, this line has no nucleotides.